

Endangered Corals

Endangered Species Act Listing What it means. How to comment.

66 corals are proposed for protection under the U.S. Endangered Species Act

On November 30, 2012, the government proposed to protect 66 species of coral under the Endangered Species Act, 12 as “endangered” and 54 as “threatened,” because global warming, disease and ocean acidification are driving them toward extinction. The proposed rule by the National Marine Fisheries Service responded to a 2009 scientific petition by the Center for Biological Diversity seeking protection for 83 corals in U.S. waters. Of the corals covered in the proposed rule, seven occur in Florida and the Caribbean and the remaining live in the Pacific, including Hawaii. Additionally, the rule proposed that two Caribbean species—elkhorn and staghorn corals—already listed under the ESA be reclassified from threatened to endangered.

The world’s coral reef ecosystems are in crisis. Nearly 30% of coral reefs have already been lost, and more are at risk. Corals face widespread threats ranging from habitat destruction, pollution, overharvest, and disease—and now climate change. Warming ocean temperatures and ocean acidification due to greenhouse gas pollution threaten the continued survival of coral reefs. In recent years, the frequency of mass bleaching events and disease outbreaks have increased, and some areas are experiencing sluggish coral growth due to acidification. Some coral scientists warn that unless CO₂ pollution is rapidly reduced, coral reefs and reef-dependant marine life will be committed to a terminal and irreversible decline.

If corals are to survive, they need relief from each of these threats, and the strong protections of the Endangered Species Act (ESA) can be a safety net for the conservation of coral reefs.

The ESA can address key threats to corals

Protecting these corals under the ESA would provide a suite of conservation tools for corals. ESA protection would make it unlawful to harm or kill listed corals. It would lead to the protection of critical habitat areas for corals in US waters. It would also require science-based recovery plans for the corals with specific management and research actions aimed to help them survive and recover.

Perhaps most significantly, the government must ensure that its activities do not jeopardize corals or harm critical habitat. This means that federal agencies must consult with federal biologists to analyze and

- **66 corals are proposed for protection under the US Endangered Species Act — 7 in Florida and the Caribbean and 59 in the Pacific, including Hawaii.**
- **Elkhorn and staghorn corals were proposed for reclassification from “threatened” to “endangered.”**
- **Most of these corals are likely to face extinction within this century with ocean warming, disease and ocean acidification as key threats.**
- **ESA listing would prohibit people from harming or killing corals; it also triggers habitat protections and recovery planning.**
- **Projects that are federally funded or permitted — such as dredging, construction, water pollution, and commercial fishing — must consult with federal biologists and avoid harms to listed corals and critical habitat.**
- **The ESA can provide added funding for coral conservation in the US and abroad.**

minimize the impacts of government-approved or funded activities that could harm corals such as water pollution, dredging, commercial fishing, and coastal construction. The consultation process would also apply to federal actions that harm corals through significant greenhouse gas emissions that increase global warming. This could result in emissions reductions that help protect corals.

Finally, the listing process promotes greater awareness about threats to corals, and provides outreach opportunities that give the public a stronger voice in coral conservation.



Blue rice coral photo © Keoki Stender

ESA protection benefits species, including Caribbean corals

The ESA has prevented the extinction of 99% of the 1,482 species that have been listed to date. One study estimated that 227 listed plants and animals would have disappeared by 2006 if not for the ESA's protections. According to an analysis of the effectiveness of the ESA, species with designated critical habitat are more than twice as likely to be increasing in abundance than those without protected habitat. Moreover, species with dedicated recovery plans are significantly more likely to be improving than species without. A 2012 study concluded that the ESA has been successful in recovering listed species; 90% of sampled species have achieved recovery rates that coincide with the goals specified by their recovery plans.

Two Caribbean corals that were listed as "threatened" in 2006—elkhorn (*Acropora palmata*) and staghorn (*A. cervicornis*) corals—have already benefited from ESA protections. These corals received almost 3,000 square miles of protected habitat. US federal agencies have been required to modify a wide range of projects to reduce harms to these corals, including mitigation to harbor construction projects, the laying of undersea cable, and fisheries management plans. The ESA also gives citizens tools to compel the government to implement stronger protections for these corals. For example, the Center for Biological Diversity is challenging parrotfish overfishing that threatens the health of these listed corals. Unfortunately, these *Acropora* corals had already declined by more than 90% by the time they were listed. Earlier and more proactive ESA protection for other threatened corals—*before* they reach perilously low abundance—can help to make recovery more feasible, rapid, and cost-effective.

ESA protection can enhance research

ESA listing typically directs more research attention and funding to listed species. The number of published studies on a species often increases significantly following a petition or listing. In the case of the 83-petitioned corals, the listing petition spurred the development of NMFS's 581-page Status Review, one of the most comprehensive scientific reviews on corals to date. The listing process has also led to new studies to fill knowledge gaps on taxonomy, status, and threats to candidate corals. While researchers will need to apply for a permit to work on threatened or endangered corals, NMFS grants permits for a wide range of research and restoration activities on listed species. Overall, listing tends to enhance research activity.



Comment on the coral listing

After a thorough examination of the status review for the corals, and consideration of supplemental information provided in public comments and scientific workshops, on November 30, 2012, the Fisheries Service proposed to protect 66 species of corals under the ESA. In the Pacific, seven species would be listed as endangered and 52 as threatened. In the Caribbean, five would be listed as endangered and two as threatened.

According to the proposed rule, climate change is the most important threat to these key ocean species, with more than 97 percent of reefs predicted to experience severe thermal stress, which can cause massive bleaching and mortality, by 2050. This threat is compounded by disease and reduced survival and growth due to ocean acidification. Many reefs have already declined substantially: coral cover in the Caribbean has declined from 50 percent in the 1970s to less than 10 percent now, and similarly from 50 percent to 20 percent in the Indo-Pacific.

NMFS is soliciting information from the public, scientists, government agencies, and other interested parties on the coral listing proposal.

Submit comments via: www.regulations.gov
ID: NOAA-NMFS-2010-0036
Deadline: March 7, 2013

The proposed rule and supporting information:
<http://www.nmfs.noaa.gov/stories/2012/11/82corals.html>

At the close of one year, NMFS must finalize that listing. These corals will not receive any protection under the ESA until the listing process is complete.